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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/895,905

06/29/2001

Jens A. Roever

US 018092

9484

.7590

07/23/2004

Corporate Patent Counsel
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EXAMINER

ALAVI, AMIR

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,905

Applicant(s)

ROEVER, JENS A.

Examiner

Amir Alavi

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2-3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's election of claims 1-8 in the reply filed on 15 June 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimoto (USPN 5,912,710).

Regarding claim 1, Fujimoto discloses: a color space converter that is configured to provide a conversion of pixel values in a first color space to corresponding pixel values in a second color space (Please note, figure 9, in correlation to column 11, line 56. As indicated an RGB to YCC color space converter); a scaler that is configured to provide a scaling of pixel values at a first scale to corresponding pixel values at a second scale and a filter that is configured to apply a filter function to pixel values (Please note, figure 9, elements 305 and 306, in correlation to column 12, lines 52-55. As indicated the current scaling H filter 305 and the next scaling H filter 306 execute the horizontal scaling operation on the graphics data for the displaying target line and the next displaying line); wherein the color space converter uses the filter to provide the conversion (As shown on figure 9, the filters 305 and 306 are being utilized in the RGB to YCC conversion) and the scaler uses the filter to provide the scaling (As indicated in figure 9, elements 305 and 306 the scaling is an integrated part of the filter).

Regarding claim 2, Fujimoto discloses, wherein a first multiplexer that is configured to selectively provide pixel values to the filter to selectively effect the conversion and the scaling (Please note, figure 9, elements 301-303, in correlation to column 15, lines 12-14. As indicated the Multiplexer 303 alternately selects the current buffer 301 and the next buffer 302 and outputs the graphics data in the selected buffer at the unit pixel in a serial fashion. As shown in figure 9, these pixel values are being provided to the filters 305 and 306 for conversion and scaling).

Regarding claim 3, Fujimoto discloses, wherein a second multiplexer that is configured to selectively provide color space conversion coefficients and scaling coefficients to the filter to selectively effect the conversion and the scaling (Please note, figure 11, multiplier 514 performs multiplexing operation).

Regarding claim 4, Fujimoto discloses, wherein a third multiplexer that is configured to selectively provide offset parameters to the filter to selectively effect the conversion and the scaling (Please note, figure 11, multiplier 515 performs multiplexing operation).

Regarding claim 5, Fujimoto discloses, wherein the filter is a FIR filter (Please note, figure 11, in correlation to column 13, line 29, indicative of a FIR filter).

Regarding claim 6, Fujimoto discloses, wherein a memory that facilitates communication of pixel values among the color space converter, the scaler, and the filter (Please note, figure 9, elements 301 and 302).

Regarding claim 8, Fujimoto discloses, wherein, the filter includes a multiply-add array (Please note, figure 11, being a FIR filter containing three multipliers and an adder), and the color space converter uses the multiply-add array of the filter to provide the conversion (Please note, figure 11 and figure 9, elements 305 and 306, in comparing these two figures, note that the multiply-add arrays are being utilized in conversion of RGB to YCC), and the scaler uses the multiply-add array of the filter to provide the scaling (Please note, figure 11 and figure 9, elements 305 and 306, in comparing these two figures, note that the multiply-add arrays clear perform scaling).

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto (USPN 5,912,710) in view of Landers et al. (USPN 6,247,036 B1).

Regarding claim 7, Fujimoto discloses: a color space converter that is configured to provide a conversion of pixel values in a first color space to corresponding pixel values in a second color space (Please note, figure 9, in correlation to column 11, line 56. As indicated an RGB to YCC color space converter); a scaler that is configured to provide a scaling of pixel values at a first scale to corresponding pixel values at a second scale and a filter that is configured to apply a filter function to pixel values (Please note, figure 9, elements 305 and 306, in correlation to column 12, lines 52-55. As indicated the current scaling H filter 305 and the next scaling H filter 306

execute the horizontal scaling operation on the graphics data for the displaying target line and the next displaying line); wherein the color space converter uses the filter to provide the conversion (As shown on figure 9, the filters 305 and 306 are being utilized in the RGB to YCC conversion) and the scaler uses the filter to provide the scaling (As indicated in figure 9, elements 305 and 306 the scaling is an integrated part of the filter).

However, Fujimoto does not specifically disclose wherein, the filter is a 6-tap, 3-element FIR filter.

On the other hand, Landers et al., in the same field of endeavor disclose wherein, the filter is a 6-tap, 3-element FIR filter. (Please note, column 11, lines 37. As indicated a 6-tap filter).

Therefore, it would have been obvious to one of ordinary skill in the art to utilize this 6-tap filter of Landers et al., in Fujimoto, because as Landers et al., on column 11, lines 39-40 explains such utilization would only require 3 cycles to complete the calculations, in other words, higher efficiency.

Other prior art cited

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ishihara et al. (USPN 5,448,379) is pertinent as teaching method and apparatus for forming color images by converting a color signal to a further color density signal.

Kesatoshi et al. (USPN 5,874,937) is pertinent as teaching method and apparatus for scaling up and down a video image.

Pether (USPN 6,741,263 B1) is pertinent as teaching video sampling structure conversion in BMME.

Markandey et al. (USPN 6,128,539) is pertinent as teaching method and apparatus for forming image scaling filters.

Kuwata et al. (USPN 6,055,071) is pertinent as teaching image forming apparatus.

Asaida et al. (USPN 5,521,637) is pertinent as teaching solid state image pick-up apparatus for converting the data clock rate of the generated picture data signals.

Contact Information

- Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amir Alavi whose telephone number is (703) 306-5913.
- The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 6:30 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Assistant Commissioner for Patents

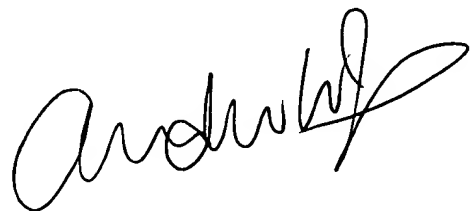
Washington, D.C. 20231

Or faxed to:

(703) 872-9306, ("draft" or "informal" communications should be clearly labeled to expedite delivery to Examiner)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application should be directed to the T.C. Customer Service Office whose telephone number is (703) 306-0377.

AA
Group Art Unit 2621
16 July 2004



ANDREW W. JOHNS
PRIMARY EXAMINER